

553,353

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number
WO 2004/090146 A1

- (51) International Patent Classification⁷: C12N 15/90, 15/79
- (21) International Application Number: PCT/FI2004/000228
- (22) International Filing Date: 14 April 2004 (14.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 20030561 14 April 2003 (14.04.2003) FI
- (71) Applicant (for all designated States except US): FINNZYMES OY [FI/FI]; Riihitontuntie 14 B, FI-02200 Espoo (FI).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SAVILAHTI, Harri [FI/FI]; Munkkiniemen Puistotie 2 B 34, FI-00330 Helsinki (FI). FRILANDER, Mikko [FI/FI]; Kekomäentie 20 C, FI-00940 Helsinki (FI). XIAOJUAN, Meng [CN/FI]; Kytösuontie 9 as 1, FI-00300 Helsinki (FI). PAATERO, Anja [FI/FI]; Taulutie 26 C, FI-00680 Helsinki (FI). PAJUNEN, Maria [FI/FI]; Tuomipolku 7 E, FI-00780 Helsinki (FI). TURAKAINEN, Hilikka [FI/FI]; Tammihaantie 15-17 E 19, FI-02940 Espoo (FI).
- (74) Agent: OY JALO ANT-WUORINEN AB; Iso Roobertinkatu 4-6 A, FI-00120 Helsinki (FI).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
- with international search report
 - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DELIVERY OF NUCLEIC ACIDS INTO EUKARYOTIC GENOMES USING IN VITRO ASSEMBLED MU TRANSPOSITION COMPLEXES

(57) Abstract: The present invention relates to genetic engineering and especially to the use of DNA transposition complex of bacteriophage Mu. In particular, the invention provides a gene transfer system for eukaryotic cells, wherein *in vitro* assembled Mu transposition complexes are introduced into a target cell and subsequently transposition into a cellular nucleic acid occurs. The invention further provides a kit for producing insertional mutations into the genomes of eukaryotic cells. The kit can be used, e.g., to generate insertional mutant libraries.

WO 2004/090146 A1